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Abstract of the Disclosure

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Disclosed are lyophilized gonadotropin containing preparations containing a dicarboxylic acid salt stabilizer. The particular proteins (e.g. LH, TSH, FSH, or HCG) are in admixture with, and at least partially capable of stabilization by, the particular stabilizer in lyophilized form. The preparations contain a sufficient amount of dicarboxylic acid salt to stabilize the protein in freeze-dried form for a desired time at a desired temperature. Typical dicarboxylic acid salts disclosed are the salts of citric, tartaric, and aspartic acids. The preparations preferably include a non-reducing disaccharide to increase the collapse temperature of the solution to be lyophilized. Methods of making the preparations in lyophilized form and the resulting injectable preparations are also disclosed.

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